

ABSTRACT OF THE DISCLOSURE

A bioluminescent oxidative indicator responds to oxygen or one of its metabolites producing light or radiation of altered characteristics when there is a change in the amount of oxygen or its metabolites present. The indicator may also be modified so that its light emission or radiation characteristics change when it is modified covalently, is linked to another protein, interacts with or binds a substance, or when coupled to a specific promoter or enhancer gene thereby acting as a reporter gene.